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Fact Sheet

Responding to a threat against a water system

For use by Division of Drinking Water staff and water systems when responding to suspected vandalism or terrorism

These guidelines are presented in general sequential order, but the various steps and actions may be adjusted to meet the needs of specific situations. Division of Drinking Water staff and utility personnel must work closely and collaboratively on determining specific actions appropriate to any given incident.

Identify the threat

- Take any suspicious activity or evidence of vandalism or sabotage seriously.
- Notify your chain of command immediately
- Designate a response coordinator
- Document what you see and keep notes as you go.

Immediately notify officials

- Contact your local law enforcement.
- Contact your Department of Health (DOH) Division of Drinking Water Regional Office and/or Regional Engineer. Use the after hours number (1-877-481-4901) if necessary.
- Alert other officials necessary to protect public health (for example, local health jurisdiction).

Assess and respond to the threat

- Inspect facilities but do not disturb any evidence.
- In consultation with your local law enforcement, determine if the threat is credible. If there is strong evidence of sabotage or terrorist activity, call the FBI at (206) 622-0460.
- Pull together a response team with expertise in the areas needed to resolve the situation.
- Determine if there is biological or chemical contamination or damage that disrupts supply.
- In consultation with DOH, determine immediate actions to protect public health (examples include notifying customers, isolating affected areas, shutting down critical facilities, and issuing "boil water" or "do not drink" advisories).
- If contamination is suspected, sample for coliform, chlorine residual, and nitrates/nitrites. See page 2 of this handout for guidance.
- Collect samples for future analysis and store them appropriately (for example, refrigerate).
- Conduct full assessment of the situation, facilities, and water quality.
- Develop a communication strategy and communicate with affected people regularly.
- If necessary, determine alternative sources of supply for your customers.
- If appropriate, drain, clean, repair, and disinfect the system. Get professional help if necessary.

Washington State Department of Health
Environmental Health Programs
Division of Drinking Water

Communicate with others

- Designate one public spokesperson who has the ability to control his or her emotions, remain calm, stay in control, and be firm but polite.
- Identify key messages and keep them current.
- Anticipate possible questions and prepare answers ahead of time.
- Never assume that what you say will be "off the record".
- Avoid conjecture and blame.
- Keep communication succinct and to the point.

Consider additional water testing

Intentional contamination of drinking water could come in many forms, which may be classified into four general categories: inorganics such as metals or cyanide, organics such as pesticides or volatile compounds, radionuclides, and pathogenic microbiological organisms. Even if you suspect contamination, it is unlikely that evidence will point to a particular contaminant. Instead, you may face a decision about which contaminants to test for. Here are some possible tests, each of which could give information about contaminants that may cause acute health effects.

Coliform Bacteria: May indicate whether microbial contamination has been introduced into the system, especially from fecal origins.

Hetertrophic Plate Count (HPC): Can provide information regarding the numbers of bacteria that may have been introduced into the water. HPC counts greater than 500 signal the need to be wary. Very high levels (1000 – 10,000 and greater) would suggest a problem that needs immediate evaluation.

Chlorine Residual: In chlorinated systems, can indicate if materials introduced into the water have created a demand for the chlorine, leaving lower-than-normal or no residual and signaling the need for further evaluations.

Chlorine Demand: For systems that do not routinely chlorinate, can reveal unusual demands on the oxidizing capability of the added chlorine, indicating the presence of a contaminant that warrants further investigation.

Nitrate/Nitrite: Relatively easy to perform. It is important to know whether these acute contaminants are present at levels that could harm infants.

Total Organic Carbon (TOC): Relatively simple to perform. Normal expected levels range from 0.2 to 4 mg/L for surface water and 0.01 to 2.0 mg/L for groundwater. Higher levels may indicate the presence of organic materials that could pose a health concern.

Total Halogenated Organic Carbon (TOX): Relative simple to perform. Measures the halogenated organic substances, including disinfection by-products such as trihalomethanes and haloacetic acids. High levels suggest that contamination has occurred or that precursor organic materials have been added to enable formation of disinfection byproducts.

Cyanide: Not easily performed, but should be done immediately if cyanide contamination is suspected. Cyanide is very toxic, causing death upon ingestion quite rapidly.

Division of Drinking Water phone numbers

- Southwest Regional Office: (360) 664-0768
- Northwest Regional Office: (253)395-6750
- Eastern Regional Office: (509) 456-3115
- After hours: 877-481-4901